

CURRICULUM VITAE OF DAVID O. KAZMER, P.E., PH.D.

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Principal Areas of Technology Leadership:

- Machine and Control Systems Design
- Injection Mold Design Engineering
- Polymer Processing
- Product Design for Manufacturing and Assembly
- Plastics Product Design
- Robust Optimal Design

Functional Areas of Expertise:

- Plastic product design and plastics manufacturing process development, especially related to injection molding, extrusion, blow molding, and thermoforming.
- Mechanical design including concept design, concept selection, materials selection, layout design, stress analysis, heat transfer, detailed design, assembly synthesis, fits and tolerances, performance testing, failure analysis;
- Design for manufacturing and assembly including needs analysis, specification, process selection, cost and value analysis, robust design, quality function deployment, design of experiments, response surface analysis, failure modes and effects analysis, and design for X (machining, molding, assembly, etc.);
- Simulation including constitutive modeling of materials, phenomenological modeling, development and solution of differential equations using finite difference and finite element methods, meshing, programming (C, C++, Pascal, BASIC, Fortran, Java, and other languages), numerical stability analysis, sensitivity analysis, stochastic and Monte Carlo methods, and interfacing;
- Manufacturing process development including system decomposition, axiomatic systems design, subsystems analysis, process instrumentation, signal conditioning,

data acquisition, systems integration, hierarchical control systems design, development and tuning of control laws, validation, commissioning, deployment, and training;

- Operations management including manufacturing strategy, forecasting, aggregate planning, inventory control, supply chain management, production control systems, operations scheduling, project scheduling, facilities design, quality and assurance, reliability and maintenance;
- Software development including ANSI C, C++, Visual C#, Visual Basic, application automation, MySQL databases, Java, Javascript, PHP, Pascal, Fortran, LabView, LabWindows, and others.

Education:

- Ph.D., 1995, Stanford University, Mechanical Engineering Design Division. Dissertation: Dynamic Feed Control for Injection Molding. Committee: P. Barkan (Chair, deceased), W. Hausman, K. Ishii, F. Prinz.
- 1991 M. Sci., Rensselaer Polytechnic Institute, Department of Mechanical Engineering, Thesis: Development and Validation of a Radial Flow Analysis Tool. Advisor: D. Lee.
- 1989 B. Sci., Cornell University, Sibley School of Mechanical Engineering, with Distinction.

Experience:

- September, 2005 – present: Professor, Univ. Mass. Lowell, Department of Plastics Engineering
- January, 2002 – August, 2005: Associate Professor, Univ. Mass. Lowell, Department of Plastics Engineering
- 2001, Director of Research & Development, Synventive Molding Solutions (Peabody, Massachusetts)
Responsible for invention, implementation, and support of advanced melt delivery systems for the plastics industry, including: 1) Dynamic Feed Control for multi-gate closed loop pressure control, 2) hot runner molding of molten magnesium, and 3) an all-electric melt delivery system. Responsibilities included engineering design and management, budgeting responsibilities, market development, and field support.
- June, 2000 – June, 2001: Associate Professor, Univ. Mass. Amherst, Department of Mechanical and Industrial Engineering

- September, 1995 – May, 2000: Assistant Professor, Univ. Mass. Amherst, Department of Mechanical and Industrial Engineering
- 1992-1994 (part time), Technology Programs Manager, GE Plastics Commercial Development Center (Pleasanton, California)
Developed design methodologies and manufacturing technologies to position GE Plastics as a value added supplier. Translated relevant technology to regional development centers for commercial application. Provided design and processing support on critical applications.
- 1991, Design and Process Development Engineer, GE Plastics Advanced Design Engineering Group (Pittsfield, Massachusetts)
Developed design methodologies and manufacturing technologies to position GE Plastics as a value added supplier. Translated relevant technology to regional development centers for commercial application.
- 1990, Mechanical Engineer, GE Corporate Research & Development Mechanics of Materials Laboratory (Schenectady, New York)
Investigated industrial plastic conversion processes. Developed process simulations which became part of GE Plastics' design methodology. Examined material characterization techniques to estimate molded product consistency.
- 1988-1989, Applications Engineer Intern, GE Plastics Advanced Design Engineering Group (Pittsfield, Massachusetts)
Performed process simulations to ensure product manufacturability as well as structural analyses to predict and optimize part performance.

Professional Memberships:

- Member, American Society of Mechanical Engineers (ASME)
- Member, Society of Plastics Engineers (SPE)
- Member, Polymer Processing Society
- Member, Institute of Electrical and Electronics Engineers
- Member, American Society for Engineering Education
- Registered Professional Manufacturing Engineer, State of California, License # MF004751

Honors and Awards:

- 2004, Best Paper Award, 10th ASME Design for Manufacturing Conference
- 2000, University of Massachusetts Amherst, College of Engineering Outstanding Young Faculty Award
- 1999, Lilly University Teaching Fellowship
- 1998, Office of Naval Research Young Investigator Award
- 1998, Best Paper Award, Society of Plastics Engineers' Design Division
- 1997, National Science Foundation Career Award
- 1996, 1997, and 2000, College of Engineering Outstanding Advisor Service Award
- 1995, Future Professor of Manufacturing, Stanford Integrated Manufacturing Association
- 1994, Innovative Industrial Process Award, U.S. Department of Energy
- 1993, Best of Program, Lincoln Electric National Design Competition
- 1992, Management award for outstanding achievements, General Electric Company
- 1989, Management award for outstanding contributions, General Electric Company

Sponsored Research:

- MKS, SenseLink Project, \$50,000 plus \$40,000 in kind, 2006.
- National Science Foundation, High Rate Nano-Manufacturing (with J. Mead and C. Barry of UML), Status: funded 2004-.
- National Science Foundation, Sensors: Self-Powered Spatial Sensing Array for Injection Molding Process Monitoring (with R. Gao of UMass Amherst), UML Budget: \$218,364, Status: funded 2004-07.
- Mold-Masters Ltd., Technical Feasibility of a Self-Regulating Melt Valve, UML Budget: \$40,000 plus \$20,000 in kind, Status: funded 2004.
- National Science Foundation, Synthesis of Melt Pumps & Brakes for Polymer Processing, UML Budget: \$213,508, Status: funded 2003-06.
- National Science Foundation, Input Profiling for Plastic Molding and Forming Processes (with K. Danai of UMass Amherst), UML Budget: \$78,500, Status: not funded 2004.

- **Mold Masters Ltd., Technical Feasibility of Decoupled Gating, UML Budget: \$40,000 plus \$120,000 in kind, Status: funded 2003.**
- **National Science Foundation, Model-Based Set-Point Profiling for Plastics Molding, (with K. Danai of UMass Amherst), UML Budget: \$73,000, Status: not funded 2003.**
- **National Science Foundation, Plastics Partnerships for Innovation, (with S. McCarthy), UML Budget: \$600,000, Status: not funded 2002.**
- **National Science Foundation, Information System Proposal: Solution of Robust & Confident Process Windows, UML Budget: \$337,561, Status: not funded 2002.**
- **Thermo-CeramiX LLC, Technical Feasibility of Isothermal Molding, UML Budget: \$15,000 plus \$20,000 in kind, Status: funded 2002.**
- **National Science Foundation, Remote Sensors for Injection Molding (with R. Gao), Budget: \$310,000, Status: funded 1999-2002.**
- **GE Plastics, Design for Six Sigma: Phase III, (with T. Blake), Budget: \$35,000, Status: funded 1999.**
- **Office of Naval Research, Dynamic Cooling for Injection Molding, Budget: \$298,000, Status: funded 1998-2001.**
- **GE Plastics, Optical Molding Process Development (w. K. Danai), Budget: \$42,000, Status: funded 1998.**
- **National Science Foundation, Remote Sensors for Injection Molding (with R. Gao), Budget: \$275,000, Status: not funded 1998.**
- **AlliedSignal Plastics, Advanced Design Methods for Injection Molded Parts: Phase I (with B. Kim) Budget: \$35,000, Status: not funded 1998.**
- **GM Delphi, Virtual Search Method for Automotive Applications (with K. Danai), Budget: \$40,000, Status: not funded 1999.**
- **GE Plastics, Tight Tolerance Thermoforming Extension, Budget: \$25,000 with \$10,000 in-kind, Status: funded 1999.**
- **GE Plastics, Design for Six Sigma: Phase II (with T. Blake), Budget: \$35,000, Status: funded 1998.**
- **Industry Consortium (AMP, Ford, Gillette), Quality Control Methods for Injection Molding (with K. Danai), Budget: \$180,000, Status: not funded 1998.**
- **National Science Foundation Graduate Engineering Reform, Professional Engineering Education (with J. Rinderle, D. Fisher, and C. Poli), Budget: \$800,000, Status: not funded 1996.**
- **GE Plastics, Tight Tolerance Thermoforming, Budget: \$35,000 with \$10,000 in-kind, Status: funded 1997.**
- **Sloan Foundation, Integrated Manufacturing Paradigms, Budget: \$35,000, Status: funded 1997.**

- Industry Consortium (AlliedSignal, BIC, Polaroid, Pitney Bowes), Molded Product Design, (with J. Rinderle), Budget: \$500,000, Status: not funded.
- National Science Foundation, Modeling Paradigm for Acquisition, Representation, and Explanation of Expertise (with K. Danai, M. Tsapatsis, and P. Utgoff), Budget: \$340,000, Status: not funded 1997.
- Packard Foundation, Intelligent Processing of Polymeric Materials, Budget: \$500,000, Status: not funded 1997.
- GE Plastics, Design for Six Sigma: Phase I, Budget: \$35,000, Status: funded 1996.
- National Institute of Standard and Technology, Injection Molding Quality (with G. Trantina and A. Poslinski), Budget: \$4,000,000 (\$250,000 Amherst), Status: not funded 1996.
- National Science Foundation, Process Tuning and Optimization (with K. Danai), Budget: \$198,000, Status: funded 1996-1999.
- National Science Foundation, CAREER: Synthesis of Engineering Analysis Methods into the Design Process, Budget: \$310,000, Status: funded 1996-1999.
- GE Plastics, Electro Magnetic Shielding Review, Budget: \$35,000, Status: not funded 1996.
- CUMIRP (Poly. Sci. research initiation project), Electro Magnetic Shielding Review, Budget: \$12,000, Status: not funded 1995.
- Univ. Mass. Amherst (research initiation project), Cost of Complexity in Product Design and Manufacture, Budget: \$5,000, Status: funded 1995.
- National Science Foundation, Cost of Complexity, Budget: \$300,000, Status: not funded 1995.
- National Science Foundation, Virtual Search Method (with K. Danai), Budget: \$178,000, Status: not funded 1995.
- Industry Consortium (GE Plastics, Hewlett Packard, Dynisco Instruments), Moldability Program, Budget: \$25,000 with \$250,000 in kind, Status: funded 1994-95.
- U.S. Dept. of Energy, Innovative Industrial Processes, Budget: \$40,000, Status: funded 1994.

Graduate Student Advising (principally advised students only):

- Stephen Johnston, D. Eng., Plastics Engineering, 2007, "Intelligent sensing of the injection molding process."
- Daniel Hazen, M.S.E., Plastics Engineering, 2007, "Data feature definition and validation in quality control."
- Suganya Velusama, M.S.E., Plastics Engineering, 2007, "Ultrasonic monitoring in injection molding."

- Rakshit Amba, M.S.E., *Plastics Engineering*, 2007, "Control of surging in extrusion."
- Mark Doyle, M.S.E., *Plastics Engineering*, 2007, "Survey of commercial hot runner systems."
- Michael Johnes, M.S.E., *Plastics Engineering*, 2006, "Macro molding of micro parts."
- Peter Knepper, M.S.E., *Plastics Engineering*, 2006, "Multi-objective optimization of injection molding."
- Ruchi Karania, M.S.E., *Plastics Engineering*, 2005, "Analysis of lower volume plastics manufacturing processes."
- William Rousseau, M.S.E., *Plastics Engineering*, 2005, "Analysis and validation of color changes in hot runner molding."
- Kathryn Garavish, M.S.E., *Plastics Engineering*, 2005, "Analysis of hesitation effects in oscillating polymer flows."
- Stephen Johnston, M.S.E., *Plastics Engineering*, 2005, "Real time simulation of decoupled molding."
- Ranjan Nageri, M.S.E., *Plastics Engineering*, 2005, "Real time simulation of the injection molding process."
- Greg Rathbone, M.S.E., *Plastics Engineering*, 2005, "Validation of thermal wave production of optical media."
- Vijay Kudchakar, M.S.E., *Plastics Engineering*, 2005, "Validation of a self-regulating melt pressure valve."
- Rahul Pulchari, M.S.E., *Plastics Engineering*, 2005, "Characterization of a polymer lubricated hydrodynamic bearing."
- Charles Theurer, Ph.D., *Mechanical Engineering (Amherst)*, 2004, "Extraction and digitization of a process signal for self-powering a wireless pressure sensor."
- Mahesh Munavalli, M.S.E., *Plastics Engineering*, 2004, "Design and analysis of a self-regulating melt pressure valve."
- Hitesh Mundhra, M.S.E., *Plastics Engineering*, 2004, "Development and validation of process windows."
- Dheeraj Gupta, M.S.E., *Plastics Engineering*, 2004, "Design and validation of low force melt valves in polymer processing."
- Akash Kamoolkar, M.S.E., *Mechanical Engineering (Amherst)*, 2004, "Optimization of ejector systems for injection molded parts using genetic algorithms."
- Brendan Cahill, M.S.E., *Plastics Engineering*, 2003, co-chair with R. Malloy, "Design for in-mold labeling."
- Nirmal Doshi, M.S.E., *Plastics Engineering*, 2003, "Design of a platenless injection molding machine."
- Kaushik Manek, M.S.E., *Plastics Engineering*, 2003, "Analysis of yield prediction models in plastics manufacturing."

- Gautam Balasubrahmanyam, M.S.E., *Plastics Engineering*, 2003, "The stability of plastic melt flows at low temperatures and flow rates"
- Yash Dave, M.S.E., *Plastics Engineering*, 2003, "Concept validation of a melt brake for extrusion"
- Binfeng Fan, Ph.D., *Mechanical Engineering (Amherst)*, 2002, "Quality simulation and optimization of optical media produced via injection-compression molding."
- Deepak Kapoor, M.S.E., *Manufacturing Engineering*, 1997, "Multi-cavity melt control in injection molding."
- Tatiana Petrova, M.S.E., *Mechanical Engineering*, 1997, "Hybrid neural network models for prediction of molded part quality."
- Sally Carter, BS, *Mechanical Engineering*, 1998, "Structural design of bosses for molded plastic parts."
- Adekunle Fagade, Ph.D., *Industrial Engineering*, 1999, "The role of complexity in product life-cycle cost."
- David Hatch, M.S.E., *Mechanical Engineering*, 1999, "Modeling and optimization for processing of optical media."
- Haoyu Xu, M.S.E., *Mechanical Engineering*, 1999, "Cooling considerations for injection molding."
- Haihong Xu, M.S.E., *Mechanical Engineering*, 1999, "Shrinkage prediction of thermoformed parts."
- Christoph Roser, Ph.D., *Mechanical Engineering*, 2000, "A flexible design methodology."
- Prasanth Ambady, M.S.E., *Mechanical Engineering*, 2001, "Adaptive control of the injection mold cooling process."
- Ian Stuart, M.S.E., *Mechanical Engineering*, 2001, "Production quality improvements in plastics processing."
- Liang Zhu, Ph.D., *Mechanical Engineering*, 2001, "An Extensive Simplex Method for global feasibility evaluation in systems design."
- Charles Theurer, M.S.E., *Mechanical Engineering*, 2001, "Conceptual design of a remotely energized pressure sensor."

Books and Book Chapters:

- Kazmer, D.O., "Precision Process Control," Precision Injection Molding, Hanser Publishers, R.W. Friedl, J. Greener, Ed., 2006.
- Kazmer, D.O., "Injection Molding," Encyclopedia of Chemical Processing, Marcel Dekker, Sunggyu (K.B.) Lee, Ed., 2005.

- Kazmer, D.O., "Computer Flow Simulations," Society of Plastics Engineers' Molding Toolbox, 2002.
- Roser, C. and D. O. Kazmer, "Defect Cost Analysis," Plastics Failure Analysis and Prevention, J. Moalli Ed., 2001.
- Kazmer, D.O. and K. Danai, "Control of Polymer Processing," in The Control Handbook, edited by W. S. Levine, published by CRC & IEEE Press, 2001.
- Kazmer, D. O., "Dynamic Feed Control for Injection Molding," Ph.D. Dissertation, Mechanical Engineering Design Division, Stanford University, 1995.
- Kazmer, D. O., "Development and Validation of a Radial Flow Analysis Tool", M.S.E. Thesis, Department of Mechanical Engineering, Rensselaer Polytechnic Institute, 1991.

Reviewed Articles:

- R. Karania and D. Kazmer, "Low Volume Plastics Manufacturing Strategies," Submitted to ASME Journal of Mechanical Design.
- L. Zhang, C. Theurer, R. X. Gao, and D. O. Kazmer, "Design Of Ultrasonic Transmitters With Defined Frequency Characteristics For Wireless Pressure Sensing In Injection Molding," Submitted to the Journal of Acoustics.
- D. Kazmer and L. Zhu, "A Quality Modeling System," Submitted to the Journal of Quality Technology.
- Y. Cui, R. X. Gao, and D. O. Kazmer, "A Bond Graph Approach to Energy Efficiency Analysis of a Self-Powered Wireless Pressure Sensor," Submitted to Journal of Smart Structures and Systems.
- Kazmer, D., and B. Fan, "Polymer Flow in a Melt Pressure Regulator," Submitted to the ASME Journal of Manufacturing Science.
- S. Dong, C. E. B. Fan, K. Danai, and D. O. Kazmer, "Process-Driven Input Profiling for Plastics Processing," Submitted to the ASME Journal of Manufacturing Science.
- L. Zhang, C. Theurer, R. X. Gao, and D. O. Kazmer, "Ultrasonic Pulses Detection and Differentiation using Analytic Wavelet for Injection Mold Cavity Pressure Measurement," Submitted to the ASME Journal of Manufacturing Science.
- D. O. Kazmer and D. Gupta, "A Low Force Valve for Dynamic Control of Molten Plastics," International Polymer Processing, v. 21, n. 2, pp. 175-182.

- S. Johnston and D. Kazmer, "Decoupled Gating and Simulation for Injection Molding," *Polymer Plastics Technology & Engineering*, v. 45, pp. 575-584, 2006.
- D. O. Kazmer, R. Nageri, V. Kudchakar, B. Fan., R. X. Gao, "Validation of Three On-Line Flow Simulations for Injection Molding," *Polymer Engineering and Science*, v. 46, n. 3, pp. 274-288, 2006.
- D. Kazmer , D. Gupta, M. Munavalli, V. Kudchakar, and R. Nageri, "Design and Performance Analysis of a Self-Regulating Melt Pressure Valve," *Polymer Engineering and Science*, v. 46, n. 4, p. 549-557, 2006.
- B. Fan, D. Kazmer, and R. Nageri, "An Analytical Non-Newtonian and Non-Isothermal Viscous Flow Simulation," v. 45, p. 429-438, 2006.
- C.B. Theurer, L. Zhang, D.O. Kazmer, R.X. Gao, and R. W. Jackson, "Passive Charge Modulation for a Wireless Pressure Sensor" *IEEE Sensors Journal*, v. 6, n. 1, p. 47-54, 2006.
- D. O. Kazmer and D. Gupta, "A Low Force Shut-off Valve for Dynamic Control of Molten Plastics in a Mold," *International Polymer Processing*, n. 4, p. 348-356, 2005.
- Kazmer, D.; Kudchadkar, V.; Nageri, R. , "Validation of moulding consistency with a self-regulating melt pressure valve," *Plastics, Rubber, and Composites Processing*, v. 33, n. 9-10, p. 438-445, 2005.
- Kazmer, D.; Kudchadkar, V.; Nageri, R. , "Validation of moulding productivity with two self-regulating melt pressure valves," *Plastics, Rubber, and Composites Processing*, v. 33, n. 9-10, p. 446-451, 2005.
- B. Fan, D. Kazmer, "Low-temperature modeling of the time-temperature shift factor for polycarbonate," *Advances in Polymer Technology*, v. 24, n. 4, p. 278-287, 2005.
- Kazmer, D., Lotti, C., Breta, R. E. S., Zhu, L., "Tuning and Control of Dimensional Consistency in Molded Products," *Advances in Polymer Technology*, v. 23, n. 3, p. 163-175, 2004.
- C.B. Theurer, L. Zhang, D.O. Kazmer, and R.X. Gao, "Energy Extraction for a Self-Energized Pressure Sensor" *IEEE Sensors Journal*, v. 4, n. 1, p. 28-35, 2004.
- B. Fan, D. O. Kazmer, W.C. Bushko, R. P. Thierault, A. J. Poslinski, "Birefringence Prediction of Optical Media," *Polymer Engineering & Science*, v. 44, n. 4, April, 2004, p. 814-824.

- Zhang, L., Theurer, C., Gao, R., and D. O. Kazmer, "A Self-Energized Sensor for Wireless Injection Mold Cavity Pressure Measurement: Design and Evaluation," *ASME Journal of Dynamic Systems (DSC)*, v. 72, n. 2, 2003, p. 1167-1173.
- L. Zhang, C. Theurer, R. Gao, and D. Kazmer, "Frequency Design of an Ultrasonic Transmitter for Injection Molding Pressure Measurement", *Transactions of the North American Manufacturing Research Institution of SME*, Vol. XXXI, p., 579-586, 2003.
- B. Fan and D. O. Kazmer, "Warpage Prediction of Optical Media," *Journal of Polymer Science: Part B Polymer Physics*, v. 41, p. 859-872, 2003.
- L. Zhu and D. O. Kazmer, "An Extended Simplex Method for Global Feasibility Evaluation," *Journal of Engineering Optimization*, v. 35, n. 2, p. 165-176, 2003.
- B. Fan and D. O. Kazmer, "Simulation of Injection-Compression Molding of Optical Media," *Polymer Engineering & Science*, v. 43, n. 3, p. 596-606, 2003.
- L. Zhang, C. B. Theurer, R. X. Gao, and D. O. Kazmer, "Development of A Wireless Pressure Sensor With Remote Acoustic Transmission," *Journal of the North American Manufacturing Research Institute*, Vol. XXX, p. 573-580, 2002.
- D. Kazmer, D. Kapoor, C. Roser, L. Zhu, and D. Hatch, "Definition and Application of A Process Flexibility Index," *ASME Journal of Manufacturing Science*, v. 125, p. 164-172, 2003.
- C. Roser, D. Kazmer, and J. Rinderle, "An Economic Design Change Method," *ASME Journal of Mechanical Design*, v. 125, n. 2, p. 233-239, 2003.
- Zhu, L. and D. Kazmer, "A Performance-Based Representation for Engineering Design," *ASME Journal of Mechanical Design*, v. 123, n. 4, p. 486-493, 2001.
- Yang, D., K. Danai, and D. Kazmer, "A Knowledge-Based Tuning Method for Injection Molding Machines," *ASME J. Manufacturing Science and Engineering*, 2001. 123(4): p. 682-691.
- Kazmer, D., L. Zhu, and D. Hatch, "Process Window Derivation With an Application to Optical Media Manufacturing," *ASME Journal of Manufacturing Science*, v. 123, p. 303-314, 2001.
- H. Xu and D. Kazmer, "Thermoforming Shrinkage Prediction," *Journal of Polymer Engineering and Science*, v. 41, n. 9, 2001.
- D. Hatch and D. Kazmer "Process Transfer Function Development For Optical Media Manufacturing," *International Journal of Advanced Manufacturing Technology*, v. 18, n. 4, 2001.

- H. Xu and D. Kazmer, "Tight Tolerance Thermoforming," *International Polymer Processing*, v. 16, n. 2, p. 208-215, 2001.
- J. Reilly, M. Doyle, and D. O. Kazmer, "An Assessment of Dynamic Feed Control in Modular Tooling," *Journal of Injection Molding Technology*, September, 2001, 5 (1), p. 52-61.
- D. Kazmer and D. Hatch, "Towards Controllability of Injection Molding," *Journal of Materials Processing and Manufacturing Science*, October, 2000, 9 (2), p. 94-99.
- A. Fagade and D. O. Kazmer, "Early Cost Estimation for Injection Molded Parts," *Journal of Injection Molding Technology*, September, 2000, 4 (3), p. 97-106.
- H. Xu, J. Wysocki, D. Kazmer, P. Bristow, B. Landa, J. Riello, C. Messina, and R. Marrey, "Shrinkage Estimation for Thermoformed Parts," *Thermoforming Quarterly*, March, 2000, p. 8-14.
- Xu, H. and D. O. Kazmer, "Productivity Evaluation with a Stiffness-Based Ejection Criterion of Injection Molding," *Journal of Injection Molding Technology*, 1999, 3 (4), p. 211-218.
- Kazmer, D.O. and C. Roser, "Evaluation of Product and Process Design Robustness," *Research in Engineering Design*, 1999, 11 (1), p. 21-30.
- Xu, H. and D. O. Kazmer, "A Stiffness-Based Criterion for Ejection of Injection Molded Parts," *International Journal of Polymer Processing*, 1999, 14 (1), p. 52-60.
- Petrova, T. and D.O. Kazmer, "Incorporation of Phenomenological Models in a Hybrid Network for Quality Control of Injection Molding," *Polymer-Plastics Technology and Engineering*, 1999, 38 (1), p. 1-18.
- Petrova, T. and D.O. Kazmer, "Hybrid Neural Networks for Pressure Control of Injection Molding," *Advances in Polymer Technology*, 1999, 18 (1), p. 19-31.
- Kapoor, D. and D. O. Kazmer, "Consistency and Flexibility of Multi Cavity Melt Control Injection Molding in a Commercial Application," *International Journal of Polymer Processing*, 1998, 13 (4), p. 398-405.
- Kazmer, D.O. and D.S. Roe, "Exploiting Melt Compressibility to Achieve Improves Weld Line Strengths," *International Journal of Plastics, Rubber and Composites Processing*, 1998, 27 (6), p. 272-278.
- Ivester, R., Danai, K. and D. O. Kazmer, "Virtual Search Method for Injection Molding," *Journal of Injection Molding Technology*, 1998, 2 (3), p. 165-172.

- Kazmer, D.O. and P. Barkan, "Multi-Cavity Pressure Control in the Filling and Packing Stages of the Injection Molding Process," *Polymer Engineering and Science*, 1997. 37(11): p. 1865-1879.
- Kazmer, D.O. and P. Barkan, "The Process Capability of Multi-Cavity Pressure Control of the Injection Molding Process," *Polymer Engineering and Science*, 1997. 37(11): p. 1880-1897.
- Kazmer, D.O. and R.G. Speight, "Polymer Injection Molding Technology for the Next Millenium," *Journal of Injection Molding Technology*, 1997. 1(2): p. 81-90.
- Kazmer, D.O., "Best Practices for Injection Molding," *Journal of Injection Molding Technology*, 1997. 1(1): p. 10-17.
- Kazmer, D.O., J. Rowland, and G. Sherbelis, "The Foundations of Intelligent Process Control," *Journal of Injection Molding Technology*, 1997. 1(1): p. 44-56.
- Taylor, C.A., H.G. DeLorenzi, and D.O. Kazmer, "Experimental and Numerical Investigations of the Thermoforming Process," *Polymer Engineering and Science*, 1992. 32(16): p. 1163-1173.

Conference Papers:

- D. Kazmer, J. Duffy, B. Perna, "Learning through Service: Analysis of a First, College Wide Service Learning Course," *Annual Conference of the American Society of Engineering Education*, Chicago, IL, June 18-21, 2006.
- S. Johnston, D. Kazmer, R. Gao, "Estimation of Melt Temperature from In-Mold Temperature Sensor Data," *Proceedings of the Society of Plastics Engineers Annual Technical Conference*, 2006..
- P. Knepper, D. Kazmer, "Multi-Objective Velocity Profile Optimization," *Proceedings of the Society of Plastics Engineers Annual Technical Conference*, 2006.
- B. S. Ghuman, Z. Tao, Rakshit Amba, C.M.F. Barry, and D. Kazmer, "Pressure Regulation of The Extrusion Process," *Proceedings of the Society of Plastics Engineers Annual Technical Conference*, 2006.
- R. Karania and D. Kazmer, "Low Volume Plastics Manufacturing Strategies," *Design for Manufacturing Symposium at the ASME International Mechanical Engineering Congress and Exposition*, 2005.
- D. Kazmer, "Domain-Centric Design Education," *ASME IDETC 10th Design for Manufacturing Conference*, 2005.

- David O. Kazmer, Ranjan Nageri, Bingfang Fan, Vijay Kudchadkar, Stephen Johnston, "Validation of On-Line Molding Process Simulation," Proceedings of the 2005 Society of Plastics Engineers Annual Technical Conference, 2005.
- David O. Kazmer, "Wall Thickness Optimization In Molded Product Design," Proceedings of the 2005 Society of Plastics Engineers Annual Technical Conference, 2005.
- David O. Kazmer, Kathryn Garavish, & Ranjan Nageri, "An Investigation into Hesitation Effects in Oscillating Flows," Proceedings of the 2005 Society of Plastics Engineers Annual Technical Conference, 2005.
- David O. Kazmer and Mahesh Munavallia, "Design and Performance Analysis Of A Self-Regulating Melt Pressure Valve," Proceedings of the 2005 Society of Plastics Engineers Annual Technical Conference, 2005.
- David O. Kazmer, Vijay Kudchadkar, and Ranjan Nageri, "Performance of a Self-Regulating Melt Pressure Valve," Proceedings of the 2005 Society of Plastics Engineers Annual Technical Conference, 2005.
- David O. Kazmer and Hitesh Mundhra, "Derivation of Process Windows," Proceedings of the 2005 Society of Plastics Engineers Annual Technical Conference, 2005.
- David O. Kazmer, Peter Knepper, and Stephen Johnston, "A Review of In-Mold Pressure and Temperature Instrumentation," Proceedings of the 2005 Society of Plastics Engineers Annual Technical Conference, 2005.
- David O. Kazmer, Robert Gao, Yong Cui, Stephen Johnston, and Peter Knepper, "Concept Design of a Wireless Pressure, Temperature, and Flow Rate Sensor for Injection Molding," Proceedings of the 2005 Society of Plastics Engineers Annual Technical Conference, 2005.
- D. Kazmer, L. Zhu, "Self-Regulating Melt Brakes for Dynamic Control of Molten Plastics," National Science Foundation Design & Manufacturing Conference, Scottsdale, AZ, 2005.
- D. Kazmer and L. Zhu, "An Integrated Performance Modeling System," Design for Manufacturing Symposium at the 2004 International Mechanical Engineering Congress, Anaheim, CA, 2004.
- D. Kazmer, B. Fan, R. Mukhari, "Real Time Flow Rate Estimation in Injection Molding," Molding Technology Symposium at the 20th Annual Meeting of the Polymer Processing Society, Akron, OH, June 21, 2003.

- Kazmer, D., "Declaring an Engineering Major: By Choice or By Chance?," American Society of Engineering Education New England Section 2004 Annual Conference, Boston, MA, April 2-3, 2004.
- D. Kazmer, and B. Fan, "Simulation of Polymer Flow in a Dynamic Pressure Regulator," 8th International Conference on Numerical Methods in Manufacturing Processes, American Institute of Physics, June, 2004.
- Karania, R., Kazmer, D., and C. Roser, "Plastic Product and Process Design Strategies," ASME DETC 9th Design for Manufacturing Conference, 2004.
- Kazmer, D., Gupta, D., and B. Fan, "Design and Validation of a Self-Compensating Melt Regulator for Plastics Extrusion," 2004 Society of Plastics Engineers Annual Technical Conference: Extrusion Division, Chicago, IL.
- Kazmer, D., B. Fan, and R. Najeri, "On-Line Flow Rate and Pressure Analysis with Sensor Fusion," 2004 Society of Plastics Engineers Annual Technical Conference: Injection Molding Division, Chicago, IL.
- Gao, R., Kazmer, D., Zhang, L., Theurer, C., "Self-Powered Sensing for Mechanical System Condition Monitoring," SPIE Symposium on Smart Structures & Materials/ NDE 2004, San Diego, California, March 14-18, 2004.
- D. Kazmer, "Synthesis of Melt Pumps and Brakes for Polymer Processing," National Science Foundation Design & Manufacturing Conference, 2004.
- D. Kazmer, "Synthesis of Melt Pumps and Brakes for Polymer Processing," National Science Foundation Design & Manufacturing Conference, 2004.
- Zhang, L., Theurer, C., Gao, R., and D. Kazmer, "Frequency Design of an Ultrasonic Transmitter for Injection Molding Pressure Measurement," Proceedings of the North American Manufacturing Research Conference of SME, 8 pages, 2003.
- Theurer, C., Zhang, L., Kazmer, D., and R. Gao, "In-Situ Evaluation of a Piezoelectric Energy Extraction Device for Wireless Cavity Pressure Sensing in Injection Molding," Proceedings of the 2003 ASME International Mechanical Engineering Congress & Exposition, Dynamic Systems & Control Division DSC, v 72, n 2, 2003, p 1167-1173, Washington, D.C., November 16-21, 2003.
- Kazmer, D., Manek, K., Lotti, C., Breta, R. E. S., Zhu, L., "Dimensional Tolerancing and Control in Molded Products," Proceedings of the 2003 ASME International Mechanical Engineering Congress & Exposition, Design for Manufacturing Symposium, Washington, D.C., November 16-21, 2003.
- Zhu, L. and D. O. Kazmer, "An Evolving, Model-Based Quality Function Deployer," ASME DETC 8th Design for Manufacturing Conference, v 3, 2003.

- R. Abbott, R. Combs, D. Kazmer, G. Magnant, S. Winebaum, "Elimination of Process Constraints in Plastics Injection Molding", Molding 2003 Executive Technology Conference, New Orleans, LA, 2003.
- Balasubrahmanyam, G. and D. Kazmer (2003). "Thermal Control of Melt Flow in Cylindrical Geometries," Society of Plastics Engineers Annual Technical Conference: Injection Molding Division, Nashville, TN.
- Doshi, N. and D. Kazmer (2003), "Layout Design of a Platenless Molding Machine," Society of Plastics Engineers Annual Technical Conference: Injection Molding Division, Nashville, TN.
- Fan, B. and D. Kazmer (2003), "Effect of Low Temperature Shift Factor Modeling on Predicted Part Quality," Society of Plastics Engineers Annual Technical Conference: Applied Rheology Special Interest Group, Nashville, TN.
- Fan, B. and D. Kazmer (2003), "Simulation of Optical Media Molding," Society of Plastics Engineers Annual Technical Conference: Injection Molding Division, Nashville, TN.
- Kazmer, D., S. Orroth, N. Schott (2003), "Future Directions for Plastics Engineering Education", Society of Plastics Engineers Annual Technical Conference: Injection Molding Division, Nashville, TN.
- Kazmer, D., K. Manek, et al. (2003), "Prediction of Production Yields in Injection Molding I", Society of Plastics Engineers Annual Technical Conference: Injection Molding Division, Nashville, TN.
- Kazmer, D., C. Roser, et al. (2003), "Hedge Strategies for Plastics Part Design," Society of Plastics Engineers Annual Technical Conference: Product Design & Development Division, Nashville, TN.
- Kazmer, D. O., R. X. Gao, et al. (2003), "Wireless Pressure Sensor for Injection Molding", Society of Plastics Engineers Annual Technical Conference: Sensors & Monitoring Special Interest Group, Nashville, TN.
- Zhang, L., Theurer, C., Gao, R., and D. O. Kazmer, "Design and Experimental Validation of a Self-Energized Sensor for Injection Molding Process Monitoring," Proceedings of the 5th National Science Foundation Design & Manufacturing Conference, 2003.
- Zhu, L., and D. O. Kazmer, "A Method for Multi-Criteria Decision Making," Proceedings of the 4th National Science Foundation Design & Manufacturing Conference, 2002. San Juan, Puerto Rico
- C. B. Theurer, D. O. Kazmer, L. Zhang, R. X. Gao, "Self-Energized Wireless Pressure Sensor Using Energy Extraction from Injection Mold Pressure

Differential," Proceedings of the IEEE Sensors Conference, v. 2, p. 942-949, 2002.

- L. Zhu and D. O. Kazmer, "An Extended Simplex Method for Global Feasibility Evaluation," ASME Design Automation Conference, 2002.
- D. Kazmer, "The Development of Robust & Confident Decision Spaces," Proceedings of the 4th National Science Foundation Design & Manufacturing Conference, 2002. San Juan, Puerto Rico.
- Zhang, L., Theurer, C., Gao, R., and D. O. Kazmer, "Design of a Wireless Sensor for Injection Molding Cavity Pressure Measurement," Proceedings of the 4th National Science Foundation Design & Manufacturing Conference, 2002. San Juan, Puerto Rico.
- Wang, F., Dong, S., Danai, K. D., and D. O. Kazmer, "Input Profiling for Injection Molding by Reinforcement Learning," Society of Mechanical Engineers, Dynamic Systems and Control Division, v 70, 2002, p 701-708.
- Kazmer, D. O., Hatch, D., and L. Zhu "An Investigation of Variation and Uncertainty in Six Sigma," ASME DETC 7th Design for Manufacturing Conference, v 3, p 21-29, 2002.
- Zhu, L., and D. O. Kazmer, "An extensive simplex method mapping the global feasibility," Proceedings of the 28th Design Automation Conference, ASME Design Engineering Technical Conferences, v 2, 2002, p 765-771 Sep 29-Oct 2 2002, Montreal, Que., Canada.
- C.B. Theurer, L. Zhang, R.X. Gao, and D.O. Kazmer, "Threshold energy switching and its application to wireless sensing in high energy manufacturing process", ASME International Mechanical Engineering Congress and Exhibition, Symposium on Intelligent Sensors and Sensor Networks, Paper# IMECE2002-33219, Vol. 2, New Orleans, LA, November 17-22, 2002.
- C.B. Theurer, L. Zhang, R.X. Gao, and D.O. Kazmer, "Acoustic Telemetry in Injection Molding," Society of Plastics Engineers Annual Technical Conference, May 2001. Dallas, TX.
- L. Zhang, C. Theurer, R. Gao, and D. Kazmer, "Development of a wireless pressure sensor with remote acoustic transmission", Proceedings of the North American Manufacturing Research Conference of SME, 8 pages, 2002.
- Lang, J. and D. Kazmer, "How Increased Control in Plastic Melt Delivery Increases Productivity," Accepted to Society of Plastics Engineers Annual Technical Conference, May 2002.

- Kazmer, D. and L. Zhu, "Qualitative Reasoning for Decision Synthesis," Proceedings of ASME DETC 6th Design for Manufacturing Conference, 2001. Pittsburgh, PA.
- Wang, F., Dong, S., Danai, K. D., and D. O. Kazmer, "Input Profiling for Injection Molding by Reinforcement Learning," Joint USA/Japan Symposium on Manufacturing, June 2001.
- Fan, B., Hatch, D., and D. O. Kazmer, "Simulation Based Optimization of Injection Molding," International Polymer Processing Society, May 2001.
- L. Zhang, C. Theurer, R. Gao, and D. Kazmer, "Design of a wireless sensor for injection molding cavity pressure measurement", International Symposium on Intelligent Sensors, ASME International Mechanical Engineering Congress and Exhibition, paper #DSC-24500, pp. 1-7, New York, NY, November 11-16, 2001.
- Hatch, D., D. O. Kazmer, and B. Fan, "Dynamic Cooling Design for Injection Molding," Society of Plastics Engineers Annual Technical Conference, May 2001. Dallas, TX.
- Ambady, P. and D. O. Kazmer, "Model Predictive Control of Injection Molding," Society of Plastics Engineers Annual Technical Conference, May 2001. Dallas, TX.
- Theurer, C., Zhang, L., Gao, R., and D. O. Kazmer, "Acoustic Telemetry in Injection Molding," Society of Plastics Engineers Annual Technical Conference, May 2001. Dallas, TX.
- Reilly, J., Doyle, M., and D. O. Kazmer, "An Assessment of Dynamic Feed Control in Modular Tooling," Society of Plastics Engineers Annual Technical Conference, May 2001. Dallas, TX.
- Doughty, M., Kazmer, D., "Dynamic Feed - Precision Molding in a Family Tool Application," Plastics Odyssey 2001, Rochester, NY, Sept. 24-25, 2001.
- Hawk, L., Kazmer, D., "Commercial Applications for Dynamic Feed™ Providing Dimensional Control for Each Injection Cavity," K-Plast Processing Innovations, Düsseldorf/Neuss, Germany, 2001.
- Bernier, M., Doyle, D., Kazmer, and T. Powell, "Shear Rates in Dynamic Feed," Proceeding of the Plastics Odyssey, SPE Regional Technical Conference, 2001, Rochester, NY.
- K. Johnson, D. O. Kazmer, "Innovative Feed System Technology for Global Competitiveness," PlasticsUSA, 2001. Chicago, IL.

- Danai, K., and D. O. Kazmer, "Knowledge-Based Interval Modeling Method for Tuning Injection Molding Machines," Proceedings of the 3rd National Science Foundation Design & Manufacturing Conference, 2001.
- Kazmer, D. O., Zhu, L., Roser, C., "Some Advances in Design Representation and Feasibility Analysis," Proceedings of the 3rd National Science Foundation Design & Manufacturing Conference, 2001.
- D. O. Kazmer, "Dynamic Cooling For Injection Molding," Office of Naval Research Progress Reports, 2000.
- Zhao, Y., Zhu, L., and D. O. Kazmer, "A Method for Multi-Criteria Decision Making," Informs Decision Systems, 2000. Austin, TX.
- D. O. Kazmer, A. Fagade, C. Roser, and L. Zhu, "Advances in Mechanical Systems Synthesis," Proceedings of the 3rd National Science Foundation Design & Manufacturing Conference, 2000. Tampa, FL.
- D. Kazmer, "Axiomatic Design Of The Injection Molding Process," Proceedings of the First International Conference on Axiomatic Design, 2000. Cambridge, MA.
- Danai, K., and D. O. Kazmer, "Method of Tuning and Automatic Regulation for Injection Molding," Proceedings of the 2nd National Science Foundation Design & Manufacturing Conference, 2000. Monterrey, Mexico.
- Kazmer, D. O., Fagade, A., Roser, C., Xu, H., and L. Zhu, "Incorporation of Engineering Analysis within Design Synthesis," Proceedings of the 2nd National Science Foundation Design & Manufacturing Conference, 2000. Monterrey, Mexico.
- K. Danai and D. O. Kazmer, "Knowledge Based Interval Modeling Method for Tuning Injection Molding Machines," Proceedings of the 3rd National Science Foundation Design & Manufacturing Conference, 2000. Tampa, FL.
- Zhu, L., Zhao, Y., and D. O. Kazmer, "Feasibility Mapping of Non-Linear Systems," Proceedings of the Institute for Operations Research and the Management Sciences, Decision Analysis Section, November 2000. Austin, TX.
- P. Ambady, B. Fan, D. Hatch, and D. Kazmer, "Process Design For Optimal Mold Cooling," Proceedings of Materials Processing Symposium of the ASME International Mechanical Engineering Congress & Exposition, 2000.
- D. Yang, K. Danai, and D. Kazmer, "A Knowledge Based Tuning Method for Injection Molding," Proceedings of Controls Division of the ASME International Mechanical Engineering Congress & Exposition, 2000.

- L. Zhu and D. Kazmer, "A Performance-Based Representation Of Constraint Based Reasoning And Decision Based Design," Proceedings of the 12th Design Theory & Methodology Conference, ASME Design Engineering Technical Conferences, 2000.
- Roser and D. Kazmer, "Flexible Design Methodology," Proceedings of the 5th Design for Manufacturing Conference, Proceedings of the 5th Design for Manufacturing Conference, ASME Design Engineering Technical Conferences, 2000.
- Yang, D. Kazmer, and K. Danai, "A Knowledge Based Tuning Method," Proceedings of the Annual Technical Meeting of the Society of Plastics Engineers, Orlando, FL, 2000.
- Roser and D. Kazmer, "A Method For Robust Flexible Design," Proceedings of the Annual Technical Meeting of the Society of Plastics Engineers, Orlando, FL, 2000.
- Kazmer, D. and D. Hatch. "Towards Controllability of Injection Molding." Proceedings of the Polymer Processing Symposium, ASME International Mechanical Exposition, 1999.
- Yang, K. Danai, and D. Kazmer, "A Knowledge Based Tuning Method for Injection Molding Machines," Proceedings of the USA-Japan Symposium on Manufacturing Technologies, 2000.
- Fagade, A. and D. O. Kazmer, "Optimal Component Consolidation in Plastic Product Design." Proceedings of the 4th Annual ASME Design for Manufacturing Conference, 1999. Las Vegas, NV.
- Roser, C. and D. O. Kazmer, "Risk Effect Minimization using Flexible Design," Proceedings of the 4th Annual ASME Design for Manufacturing Conference, 1999. Las Vegas, NV.
- Zhu, L. and D. O. Kazmer, "A Performance-Based Representation for Engineering Design." Proceedings of the 11th Annual ASME Design Theory and Methodology Conference, 1999. Las Vegas, NV.
- Xu, H., J. Wysocki, , D. O. Kazmer, P. Bristow, B. Landa, J. Riello, C. Messina, and R. Marrey, "Shrinkage Prediction of Thermoformed Part." in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1999. New York, NY.
- Roser, C. and D. O. Kazmer, "Defect Cost Analysis." in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1999. New York, NY.

- Doyle, M., A. Bernier, K. Camille, and D. O. Kazmer., "Utilization of Dynamic Feed Control in Family Tools ." in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1999. New York, NY.
- Yang, H., Danai, K., Hatch, D. and D. O. Kazmer, "Yield Maximization In Injection Molding by the Virtual Search Method." in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1999. New York, NY.
- Fagade, A. and D. O. Kazmer, "Effect of Complexity on Cost & Time to Market of Injection Molded Parts." in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1999. New York, NY.
- Xu, H. and D. O. Kazmer, "Validation of a Stiffness-Based Ejection Criterion for Injection Molding." in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1999. New York, NY.
- Xu, H. and D. O. Kazmer, "A Study of Cooling for Steady-State Injection Molding." in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1999. New York, NY.
- Hatch, D., D. O. Kazmer, and M. Niemeyer, "Transfer Function Development for Injection Molding of Optical Media." in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1999. New York, NY.
- Fagade, A. and D.O. Kazmer. "Modeling The Effects of Complexity on Manufacturing Costs and Time-To-Market of Plastic Injection Molded Products," in Proceedings of the Tenth Annual Conference of the Production and Operations Management Society, March 20-23, 1999. Charleston, S.C.
- Carter, S. and D. O. Kazmer, "Studies of Plastic Boss Design and Methodologies." in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1999. New York, NY.
- Fagade, A. and D.O. Kazmer. "Economic Design Of Injection Molded Parts Using DFM Guidelines - A Review Of Two Methods For Tooling Cost Estimation." in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1998. Atlanta, GA.
- Kazmer, D. O., and C. Roser, "A Theory of Constraints for Design and Manufacture of Thermoplastic Parts." in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1998. Atlanta, GA.
- Postlinski, A., Fox, C., Kazmer, D., "Correlation Of Spiral And Radial Flow Lengths For Injection-Molded Thermoplastics," in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1998. Atlanta, GA.

- Cahill, B., Doyle, M., Kazmer, D., Moss, M., Niemeyer, M., "Utilization of Dynamic Feed Control for Commercial Applications," in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1998. Atlanta, GA.
- Kapoor, D., Kazmer, D. O., "Consistency of Multi Cavity Melt Control Injection Molding in a Commercial Application," in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1998. Atlanta, GA.
- Petrova, T., Kazmer, D. O., "Development of a Hybrid Neural Network for Quality Control of Injection Molding," in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1998. Atlanta, GA.
- Ivester, R., Danai, K., Kazmer, D., "Automatic Tuning of Injection Molding by the Virtual Search Method," in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1998. Atlanta, GA.
- Kazmer, D. O., "On the Divergence of Case Studies and Hardware Prototypes in Active Learning," 1998 American Society of Engineering Education Northeast Regional Meeting.
- Kazmer, D. O., "Incorporation of Engineering Analysis into Design Synthesis," NSF Division of Design, Manufacturing, and Industrial Innovation, Grantees Conference, Monterrey Mexico, January 1998.
- Kazmer, D. O., Danai, K., "Automatic Tuning and Regulation of Injection Molding," NSF Division of Design, Manufacturing, and Industrial Innovation, Grantees Conference. Monterrey Mexico, January 1998.
- Kazmer, D. O., Petrova, T., "Analysis and Synthesis of Methods for Intelligent Processing of Polymeric Materials," Proceedings of the Polymer Processing Symposium, ASME International Mechanical Exposition, 1997.
- Kapoor, D., Kazmer, D. O., "The Definition and Use of the Process Flexibility Index," Proceedings of the 1997 ASME Design for Manufacturing Conference.
- Kazmer, D. O., Rowland, J. R., "The Challenges of Intelligent Process Control", Proceedings of the International Polymer Processing Symposium, 1997.
- Kapoor, D., Kazmer, D. O., "Multi-Cavity Melt Control for Injection Molding", Proceedings of the ASME International Mechanical Exposition, 1997.
- Rowland, J. R., Kazmer, D. O., "Quantifying the Economic Value Added of On-Line Quality Control Systems", in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1997.

- Sherbelis, J. R., Garvey, E., and Kazmer, D. O., "Methods and Benefits of Establishing a Process Window," in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1997.
- Kazmer, D., Thomas, R., and G. Sherbelis, "Quality Regulation Techniques for Injection Molding," Proceedings of Polymer Process Engineering, 1997.
- Thomas, R., Rowland, J., Kazmer, D., "On-Line Injection Control Systems Acc the Value Test," Modern Plastics, November 1997, p. 83-86.
- Kazmer, D. O., "Beyond Analysis: Leveraging Computer Aided Engineering throughout Design and Processing," First Gordon Conference for CAE in Polymer Processing, 1997.
- Garvey, E. G., Kazmer, D. O., "Application of Matlab® to Injection Molding Quality Control," Proceedings of the 3rd Annual Matlab Users Conference, Melbourne, Australia, 1996.
- Kazmer, D. O., "An On-line Quality Monitoring System for Thermoplastic Injection Molding," Proceedings from the 1996 AIChE Conference.
- Kazmer, D. O., Barkan, P., Ishii, K., "Quantifying Design and Manufacturing Robustness through Stochastic Optimization Techniques," Proceedings of the 22nd Annual ASME Design Automation Conference, 1996.
- Rowland, J. C., Kazmer, D. O., "An On-line Quality Monitoring System for Thermoplastic Injection Molding," in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1996.
- Kazmer, D. O., "Introduction to Dynamic Feed Control," in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1994.
- Kazmer, D. O., Roe, D. S., "Increasing Knit-Line Strength through Dynamic Control of Volumetric Shrinkage," in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1994.
- Burke, C. T., Kazmer, D. O., "Experimental Comparison of State of the Art High Shear Rate Polymer Rheological Characterization Techniques," in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1993.
- Irani, R. I., Kodiyalam, S., Kazmer, D. O., "Runner System Balancing for Injection Molds using Approximation Concepts and Numerical Optimization," Proceeding from the 18th Annual ASME Design Automation Conference, 1992.
- Burke, C. T., Kazmer, D. O., "An Experimental Validation of a Shrinkage/Warpage Predictor," in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1992.

- DiScipio, W. R., Kazmer, D. O., "Validation of Radial-Filling Simulation Software," in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1992.
- Kazmer, D. O., Willey, S. J., "Examination of Material Characterization and Modeling Techniques for Injection Molding Simulation," in Proceeding of the Society of Plastics Engineers Annual Technical Conference, 1992.
- Kazmer, D. O., "Simulation of the Blow Molding and Thermoforming Processes," Proceedings of the International Industrial Engineering Conference, p. 269-275, Chicago, IL, May 17-20, 1992.
- Taylor, C. A., DeLorenzi, H. G., Kazmer, D. O., "Experimental and Numerical Investigations of the Thermoforming Process," Proceedings from the American Society of Mechanical Engineers Winter Annual Meeting, 1991.
- Kazmer, D. O., "Advanced Design Methodologies for the Blow Molding Process," 20th Annual Structured Products Conference, Society of the Plastics Industry, 1991.
- Kazmer, D. O., "Application of an Axisymmetric Element for Injection Molding Analysis," Proceedings from the Society of Plastics Engineers Regional Technical Conference, Boston, MA, 1990.

Invited Presentations:

- D. Kazmer, "A Data Driven Approach to Attaining 100% Automatic Quality Assurance," Society of Plastics Engineers E-Live Seminar, April 6, 2006.
- D. Kazmer, "Advanced Methods for Plastic Product Design and Process Control," Toyota Motor and Suppliers Meeting, Lowell, MA, April 22, 2005.
- D. Kazmer, "What's the big deal about something very small? The Business of Nano", Rotary Club Meeting, Dracut, MA, May 17, 2005.
- D. Kazmer, "Self-Regulating Melt Valves for Polymer Processing," SPE Merrimack Valley Meeting, National Plastics Center, May 12th, 2005.
- D. Kazmer, "Self-Regulating Melt Valves for Polymer Processing," Synventive Molding Solutions Meeting, Lowell, MA, May 10th, 2005.
- D. Kazmer, "Simulation of Polymer Processing," National Science Foundation Center for High Rate Nano-Manufacturing, Lowell, MA, March 26th, 2005.

- Kazmer, D., "The Economics of Lights Out Manufacturing," Society of Plastics Engineers Topical Conference on Injection Molding Systems, Cleveland, OH, October, 2004.
- Hayes, C., Wood, W., Mekshat, L., Kazmer, D., "Design for Manufacturing: Future Directions for DfX," ASME Design Engineering Technical Conferences, Salt Lake City, September, 2004.
- Kazmer, D., "Advances in Molding Technology," Delphi Central Research, Detroit, MI, August, 2004.
- Kazmer, D., "Competitive Molding Technologies," Society of Manufacturing Engineers EASTEC Lean Manufacturing Conference, Springfield, MA, May, 2004.
- Kazmer, D., "Modern Injection Molding," Northeast Utilities Energy Conservation Seminar, Berlin, CT, March, 2004.
- Kazmer, D., "Competing in the 21st Century," Plastics Institute of America Quarterly Meeting, Lowell, MA, February, 2004.
- Kazmer, D., "Fundamentals of Plastic Part Design and Manufacture," National Manufacturing Week Workshop, Chicago, IL, 2003.
- Kazmer, D., "Advanced Process Control Techniques," PlasticsUSA Molding Technology 2001, Chicago, IL, 2001.
- Kazmer, D. O., "CAE & Polymer Processing Monitoring & Control: A Design Perspective," 2001 Gordon Conference on CAE in Polymer Processing, March 2001, Ventura, CA.
- D. Kazmer, K. Danai, "Virtual Search Method for Injection Molding," GE Plastics, 2000.
- D. Kazmer, "Decision Based Design: Some Questions," NSF Open Workshop on Decision Based Design, 2000, Baltimore, MD.
- D. Kazmer, "Interactive Learning: Simulating the Design Process," Symposium on Manufacturing Education, Stanford University, 2000.
- D. Kazmer, "Fundamentals of Polymer Processing," Proceedings of the Annual Technical Meeting of the Society of Plastics Engineers, Orlando, FL, 2000.
- D. Kazmer, "Trends in the Plastics Industry: Product Development Paradigms and Impact on Human Resources," Society of Manufacturing Engineers Plastics Molding & Manufacturing Annual Trends Report, 2000.

- D. Kazmer, "Quality Control Capability Assessment," Society of Manufacturing Engineers Plastics Molding & Manufacturing Annual Trends Report, 2000.
- Kazmer, D. O., "Engineering Systems Design: Gaining Controllability of Dynamic Processes," Dartmouth Thayer School of Engineering Jones Seminar, May 2000.
- Kazmer, D. O., "Synthesis and Analysis of Quality Control Methods for Intelligent Processing of Polymeric Materials," Canada National Research Center, Montreal, Quebec, February 2000.
- Danai, K., Kazmer, D. O., and B. Kim, "Polymer Part Design & Processing," University of Massachusetts Polymer Science & Engineering Symposium, 1999.
- Kazmer, D. O., "Manufacturing Process Design: Towards Controllability of Injection Molding," Lehigh University Mechanical Engineering Departmental Seminar, November 1999.
- Kazmer, D. O., "Manufacturing Process Design," Massachusetts Institute of Technology Design Research Seminar, 1998.
- Kazmer, D. O., "A Theory of Constraints for Molded Part Design and Manufacture," GE Research & Development, 1998.
- Kazmer, D. O., "Commanding the Technical Frontier: Engineering Education for the 21st Century," 50th Anniversary Celebration of the University of Massachusetts Amherst College of Engineering, 1998.
- Kazmer, D.O., "Automating Molded Product Development using the Web," Society of the Plastics Industry PlasticWorld, 1998. McCormick Center, Chicago.
- Kazmer, D. O., "Dynamic Feed Control: Technology for Injection Molding Flexibility & Capability," GE Plastics, 1997.
- Kazmer, D. O., Rowland, J. R., "The Challenges of Intelligent Process Control", Proceedings of the International Polymer Processing Exposition, 1997.
- Kazmer, D. O., "University Research and Teaching Capabilities for Husky," Commonwealth of Massachusetts Economic Development Office, 1997.
- Kazmer, D. O., "University Research Activities," AlliedSignal Plastics, 1997.
- Kazmer, D. O., "Robust Design Metrics," GE Corporate Research & Development Center, 1996.
- Kazmer, D. O., "Dynamic Feed Control," GE Plastics Polymer Processing Development Center, 1995.

Other Creative Works:

- D. Kazmer, Technical Report to MKS, "Injection molding signal analysis and validation," 85 pages, 2006.
- D. Kazmer, Technical Report to MKS, "Process signal and data feature improvements," 85 pages, 2006.
- D. Kazmer, "Lean Development," Flow Front Magazine, Moldflow Inc., April, 2005.
- D. Kazmer, "Methods and devices for melt pressure regulation," International PCT Publication No. WO/ 2005/113215, April 25, 2005.
- Doyle, M., Kazmer, D. O., Moss, M., Galati, V., "Apparatus for utilizing an actuator for flow control valve gates," U.S. Patent No. 6,824,379, November 30, 2004.
- D. Kazmer, Invention Disclosure, Self-Regulating Pressure valve for Polymer Processing, 2004.
- D. Kazmer, "The Design Process," large format posters installed at the Tsongas Industrial History Museum, 2004.
- D. Kazmer, "Melt Control System for Injection Molding," U.S. Patent Application Number 2004/0119182, June 24, 2004.
- D. Kazmer, Technical Report to MoldMasters Ltd., "Technical Feasibility of Advanced Molding Technologies: On-Line Flow Simulation, Digital Valve Modulation, and Self Regulating Valves," 490 pages, 2004.
- D. Kazmer, Invention Disclosure, A Melt Control System for Injection Molding Using a Spool Valve, 2003.
- D. Kazmer, Invention Disclosure, Manufacturing Translation between Production Machines and Suppliers, 2003.
- D. Kazmer, Invention Disclosure, Sensor Fusion for Deriving Flow Rates and Pressures in Injection Molding, 2003.
- D. Kazmer, Book Review, Design of Machine Elements by M. F. Spotts, T.E. Shoup, L. E. Hornberger, Eighth Edition, Pearson Prentice Hall, Upper Saddle River, NJ, 2004 (ISBN 0-13-048989-1). Journal of Mechanical Design, 2003.
- Kazmer, D. O., "Dynamic Cooling for Injection Molding," Final Report to Office of Naval Research, 2003.

- Kazmer, D. O., "An Optimization Primer," paper written for Introduction to Engineering Course Reader, August 1, 2003.
- D. Kazmer, Invention Disclosure, Radial Valve Gating for Dynamic Melt Control, 2002.
- D. Kazmer, Invention Disclosure, Method of Process Simulation with a Mold Assembly, 2002.
- D. Kazmer, Invention Disclosure, Self-Energizing Wireless Sensor with Threshold Activation, 2002.
- D. Kazmer, Invention Disclosure, Method for Dynamic Cost Estimation of Injection Molded Article, 2002.
- D. Kazmer, Invention Disclosure, Method For Pumping and Braking the Flow of Polymer Melt, 2002.
- Kazmer, D., Hatch, D., Zhu, L., "Four Measures of System Performance," 2002.
- Doughty, M. A., Firisin, W. D., Hume, W. J., Moss, M. D., Kazmer, D. O., "Controlled injection using manifold having multiple feed channels," U.S. Patent No. 6,767,486, July 27, 2004.
- Kazmer, D. O., Moss, M., Doyle, M.; van Geel, H., "Manifold system having flow control," U.S. Patent No. 6,769,896, August 3, 2004.
- Kazmer, D. O., Moss, M., Doyle, M.; van Geel, H., "Manifold system having flow control," U.S. Patent No. 6,713,002, March 30, 2004.
- Moss, M., Kazmer, D. O., "Apparatus and method for proportionally controlling fluid delivery to readily replaceable mold inserts," U.S. Patent No. 6,638,049, October 28, 2003.
- Kazmer, D. O., Moss, M., Doyle, M., "Dynamic feed control system," U.S. Patent No. 6,632,079, October 14, 2003.
- Doughty, M. A., Firisin, W. D., Hume, W. J., Moss, M. D., Kazmer, D. O., "Controlled injection using manifold having multiple feed channels," U.S. Patent No. 6,589,039, July 8, 2003.
- Kazmer, D. O., Moss, M., "Machine for proportionally controlling fluid delivery to a mold," U.S. Patent No. 6,585,505, July 1, 2003.
- Kazmer, D. O., Moss, M., Bassett, B., Doyle, M., "Apparatus and method for purging injection molding system," U.S. Patent No. 6,514,440, February 4, 2003.

- Kazmer, D. O., Moss, M., Doyle, M., van Gee, H. "Manifold system having flow control," U.S. Patent No. 6,464,909, October 15, 2002.
- Kazmer, D., Moss, M., "Method using manifold system having flow control," U.S. Patent No. 6,436,320, August 20, 2002.
- Kazmer, D., Moss, M., "Manifold system having flow control using pressure transducers," U.S. Patent No. 6,361,300, March 26, 2002.
- Fuller, N., Moss, M., Kazmer, D. O., Galati, V., "Apparatus and Method for Proportionally Controlling Fluid Delivery to Stacked Molds," International PCT Publication No. WO/2002/074516, March 19, 2002.
- Kazmer, D., Moss, M., "Manifold system having flow control using separate cavities," U.S. Patent No. 6,343,921, February 5, 2002.
- Kazmer, D., Moss, M., "Manifold system having flow control using pressure transducers," U.S. Patent No. 6,343,922, February 5, 2002.
- K. Danai and D. Kazmer, Invention Disclosure, Virtual Search Method for Injection Molding, 2001.
- D. Kazmer, Invention Disclosure, Dynamic Cooling for Injection Molding of Thermoplastic Parts, 2000.
- Kazmer, D. O., Moss, M. D., Doyle, M., "Dynamic Feed Control System," PCT Publication No. WO/2001/60580, February 13, 2001.
- Kazmer, D., Moss, M., "Manifold system having flow control using extended valve pin," U.S. Patent No. 6,254,377, July 3, 2001.
- Kazmer, D., Moss, M., "Apparatus for proportionally controlling fluid delivery to a mold," U.S. Patent No. 6,287,107, September 11, 2001.
- Kazmer, D., Moss, M., "Electric actuator for a melt flow control pin," U.S. Patent No. 6,294,122, September 25, 2001.
- Doughty, M. A., Firisin, W. D., Hume, W. J., Moss, M. D., Kazmer, D. O., "Controlled injection using manifold having multiple feed channels," PCT Publication No. WO/2002/36324, October 29, 2001.
- Kazmer, D., Moss, M., "Apparatus for proportionally controlling fluid delivery to a mold," U.S. Patent No. 6,309,208, October 30, 2001.
- Zhu, L., and D. O. Kazmer, "An Extensive Simplex Method for Mapping Global Feasibility," 2001.

- Fagade, A., Kazmer, D., "Optimal Component Consolidation in Mechanical Systems," 2000.
- Kazmer, D. O., Zhu, L., "A Performance Based Representation for Support of Multiple Decisions," International Application No. WO 00/72268, November 30, 2000.
- Kazmer, D. O., Moss, M. D., "Apparatus and Method for Proportionally Controlling Fluid Delivery to a Mold," International Application No. WO 01/34362, November 3, 2000.
- Kazmer, D. O., Moss, M. D., "Manifold System Having Proportional Flow Control," PCT Publication No. WO/2001/34364, November 3, 2000.
- D. Kazmer, L. Zhu, "A performance-based representation for support of multiple decisions," PCT Publication No. WO/2000/072268 Invention Disclosure, November 30, 2000.
- Kazmer, D. O., Moss, M. D., Doyle, M., VanGeel, H., "Manifold System Having Flow Control," PCT Publication No. WO/2001/21377, September 21, 2000.
- Fagade, A., Kazmer, D., "Early Cost Estimation for Injection Molded Parts," 1999.
- Kazmer, D. O., "Reflection on Teaching and Learning," speech to University of Massachusetts' Celebration of Teaching and Learning, March 25, 1999.
- Kazmer, D. O., Moss, M., "Manifold System Having Flow Control," PCT Publication No. WO/1999/54109, May 27, 1998.
- Kapoor, D., and D. Kazmer, "Comparison of Sequential Valve Gate Molding to Multi-Cavity Melt Control Injection Molding," 1998.
- Kazmer, D. O., "1998 Informant: Activities of the Design and Processing Quality Lab," 1998.
- Fagade, A., Kapoor, D., and D. Kazmer, "A Discussion of Design and Manufacturing Complexity," 1998.
- D. Kazmer, Invention Disclosure, Looking Glass: An Optimization System for Injection Molding, 1998.
- D. Kazmer, Invention Disclosure, Twin Screw Extruder for Continuous Manufacture of Concrete, 1997.
- D. Kazmer, Invention Disclosure, Laser Grid Array Stereolithography, 1997.

- D. Kazmer, **Invention Disclosure, Screw Design for Efficient Recycling of Polymeric Materials**, 1997.
- Kazmer, D. O., "Injection molding gate flow control," U.S. Patent No. 5,556,582, September 17, 1996.
- Kazmer, D. O., **Injection Molding Cost Estimator (Java Software)**, 1995.
- Kazmer, D. O., "Evaluation of Advanced Simulations for the Injection Molding Process," GE Plastics Internal Report, Pittsfield, MA, 1992.
- Poslinski, A. J., Aslam, S., Kazmer, D. O., "Effects of Viscosity Variation on Injection Molding," GE Research & Development Technical Information Series Number 92CRD146, 1992.
- Kazmer, D. O., "Diskflow Validation Summary," GE Plastics Report, 1992.
- Kazmer, D. O., "Customer Training Manual on Mold Packing Analysis," GE Plastics Report, 1992.
- Kazmer, D. O., "Development of a Radial Flow Analysis for Injection Molding," GE Research & Development Technical Information Series Number 91CRD195, 1991.
- Kazmer, D. O., "Adaptive Meshing of Two-Dimensional Evolving Geometries," GE Research & Development Technical Information Series Number 90CRD198, 1990.

Courses Taught:

- Fall 1995, ME415: Mechanical Systems Design, Enrollment: 14.
- Spring 1996, ME415: Mechanical Systems Design, Enrollment: 20.
- Fall 1996, MIE477: Production Scheduling and Control, Enrollment: 15.
- Spring 1997, MIE415: Mechanical Systems Design, Enrollment: 32.
- Fall 1997, MIE760: Advanced Mechanical Systems Design, Enrollment: 15.
- Spring 1998, MIE415: Mechanical Systems Design, Enrollment: 28.
- Spring 1998, MIE395: Engineering Professionalism Seminar, Enrollment: 20.
- Fall 1998, MIE697M: Modern CAD System Development, Enrollment: 16.
- Spring 1999, MIE415: MIE Capstone Systems Design, Enrollment: 25.
- Spring 1999, MIE395: Engineering Professionalism Seminar, Enrollment: 40.
- Fall 1999, MIE113: Introduction to Mech. & Ind. Eng. Enrollment: 24.
- Fall 1999, MIE697P: Manufacturing Process Design, Enrollment: 15.
- Spring 2000, MIE395: Engineering Professionalism Seminar, Enrollment: 45.

- Spring 2000, MIE415: Mechanical Systems Design, Enrollment: 20.
- Fall 2000, MIE113: Introduction to Mech. & Ind. Eng, Enrollment: 21.
- Fall, 2000, MIE760: Advanced Mechanical Systems Design, Enrollment: 8.
- Spring 2000, MIE415: Mechanical Systems Design, Enrollment: 9.
- Spring 2002, 26.373: Mold Engineering I, Enrollment: 21.
- Fall 2003, 26.524: Process Analysis, Instrumentation, and Control, Enrollment: 9.
- Spring 2003, 26.373: Mold Engineering I, Enrollment: 21.
- Spring 2003, 26.521: Lean Plastics Manufacturing, Enrollment: 10.
- Fall 2003, 25.107: Introduction to Engineering I, Enrollment: 288.
- Spring 2004, 26.373: Mold Engineering I, Enrollment: 23.
- Spring 2004, 26.521: Lean Plastics Manufacturing, Enrollment: 12.
- Fall 2004, 25.107: Introduction to Engineering I, Enrollment: 279.
- Spring 2005, 26.373: Mold Engineering I, Enrollment: 14.
- Spring 2005, 26.521: Lean Plastics Manufacturing, Enrollment: 13.
- Fall 2005, 25.107: Introduction to Engineering I, Enrollment: 307.
- Spring 2006, 26.373: Mold Engineering I, Enrollment: 25.
- Spring 2006, 26.524: Process Analysis, Instrumentation, and Control, Enrollment: 12.

Service:

- Associate Editor, Advances in Polymer Technology, 2004-2006.
- Chair, ASME Design for Manufacturing Technical Committee, 2003-2005.
Responsibilities have included staffing conferences for the DFM tracks at annual Design Engineering Technical Conference, International Mechanical Engineering Congress, and National Manufacturing Week. Also responsible for liaison with Design Education and other technical committees as well as tri-annual reports and meetings with the Design Division Executive Committee.
- Associate Editor, ASME Journal of Mechanical Design, 2003-2006.
- Chair, Design for Manufacturing Symposium, International Mechanical Engineering Congress, November, 2004.
- Vice-Chair, ASME Design for Manufacturing Technical Committee, 2001-2003.
- Chair, 6th Design for Manufacturing Symposium, ASME Engineering Design Technical Conferences, 2001.

- Program Chair, 5th Design for Manufacturing Symposium, ASME Engineering Design Technical Conferences, 2000.
- Chair, SPE Processing Instrumentation, Process Monitoring, and Control Special Interest Group, 2005-2008.
- Chair, Molding Technology Symposium, International Polymer Processing Conference, June, 2004.
- Associate Editor, Polymer Plastics Technology and Engineering, 2001-2006.
- Associate Editor, ASME Journal of Mechanical Design, 2001-2006.
- Ad Hoc Reviewer, IEEE Transaction on Engineering Management, 2004-.
- Ad Hoc Reviewer, International Journal of Food Science, 2003-04.
- Liaison, Service Learning Project for the Tsongas Industrial History Center's Innovation Laboratory, 2004-.
Incorporated service learning project in the Introduction to Engineering course. Project involved liaison with staff at Tsonga, project development, student instructions in both lectures and sections, co-evaluation of projects, post-processing of evaluations, development of exhibit, individual supervision of final student projects, and final exhibition at Tsongas.
- Member, UML Faculty Senate, 2003-.
- Ad Hoc Reviewer, American Institute of Aeronautics and Astronautics, 2003-.
- Ad Hoc Reviewer, Artificial Intelligence for Engineering Design, Analysis and Manufacturing, 2003-.
- Author and Administrator, Plastics Engineering Web Site, 2003. Responsibilities have included renovation and deployment of department web site. Surveyed students, faculty, and alumni to characterize requirements. Developed architecture and functionality. Implemented new site with content from Department Head Robert Malloy and assistance from a computer science graduate student.
- Ad Hoc Reviewer, ASME Journal of Manufacturing Science, 1998-.
- Ad Hoc Reviewer, ASME Journal of Mechanical Design, 1996-.
- Ad Hoc Reviewer, IEEE Transactions on Automation Science and Engineering, 2001-.
- Member, University Patent Evaluation Committee, 2000-2001.
- Ad Hoc Reviewer, International Polymer Processing, 1999-.
- Ad Hoc Reviewer, Journal of Polymer Composites, 2000-.
- Ad Hoc Reviewer, NSF Design Engineering Program, 1996-2000.
- Ad Hoc Reviewer, NSF Manufacturing Equipment Program, 2000-.
- Ad Hoc Reviewer, NSF Manufacturing Processes Program, 2000-.
- Ad Hoc Reviewer, NSF Operations Management Program, 1999-.
- Ad Hoc Reviewer, NSF Small Business Initiative Research Program, 2003-.
- Ad Hoc Reviewer, Polymer Plastics Technology & Engineering, 2000-.

- **Ad Hoc Reviewer, Polymer Engineering & Science, 1997-.**
- **Ad Hoc Reviewer, Research in Engineering Design, 1998-.**
- **Ad Hoc Reviewer, Rheological Acta, 2003-.**
- **Member, Collaboration Catalyst Corp. Technical Advisory Board, 2001-,**
- **Member, Mold-Masters Advisory Council, 2003-2005.**
- **Founding Member, ThermoCeramix Technical Advisory Board, 2003-2005.**